

**What is claimed is:**

1. An apparatus for inhibiting a ring back effect of a circuit, comprising:
  - a first differential current mode pair for outputting a first current and a second current through the controlling of a first control signal; and
  - a second differential current mode pair for outputting a third current and a fourth current through the controlling of a second control signal, wherein the second control signal is the delayed first control signal;wherein a first output current signal is corresponding to the first current and the third current and a second output current signal is corresponding to the second current and the fourth current.
2. The apparatus of claim 1, wherein the first differential current mode pair includes:
  - a first source for generating a first current, and
  - a first switch, coupled to the first source, for outputting the first current according to a first control signal; and
  - a second switch, coupled to the first source, for outputting the second current according to the inverted first control signal; andthe second differential current mode pair includes:
  - a second source for generating a second current;
  - a third switch, coupled to the second source, for outputting the third current according to a second control signal; and
  - a fourth switch, coupled to the second source, for outputting the fourth current according to the inverted second control signal.
3. The apparatus of claim 2, wherein the output of the second source is smaller than the output of the first source.
4. The apparatus of claim 3, wherein the ratio of the output of the second source and the output of the first source is a constant.
5. The apparatus of claim 1, wherein further includes a time delay unit for providing the second control signal through delaying the first control signal.

6. The apparatus of claim 1, wherein at least one of the first source and the second source is a current source.
7. The apparatus of claim 1, wherein at least one of the first source and the second source is a voltage source.
8. The apparatus of claim 1, wherein at least one of the first source and the second source is an independent source.
9. The apparatus of claim 1, wherein at least one of the first source and the second source is a dependent source.
10. A method for inhibiting a ring back effect of the circuit, comprising:
  - providing a first differential current pair; and
  - providing a second differential current pair, wherein the time delay and the magnitude of the second differential current pair are determined according to the first differential current pair for compensating the ring back effect of the first differential current pair;
  - wherein the second differential pair are coupled to the first differential pair to generate an output current signal pair.
11. The method of claim 10, wherein time delay of the first and the second differential current pair is adjustable.
12. The method of claim 10, wherein the ratio of the first differential current pair and the second differential current pair is a constant.